IN THE CLAIMS

This listing of claims replaces all prior listings.

1-6. (Cancelled).

7. (Currently Amended) A method of manufacturing a solid-electrolyte battery comprising:

forming a first set of gel-electrolyte layers on both sides of a positive electrode collector;

forming a second set of gel-electrolyte layers on both sides of a negative electrode collector;

forming a positive electrode comprising the first set of gel-electrolyte layers on both sides of the positive electrode collector;

forming a negative electrode comprising the second set of gel-electrolyte layers on both sides of a negative electrode collector;

laminating said positive electrode and said negative electrode such that one of the first set of gel-electrolyte layers and one of the second set of gel-electrolyte layers face each other;

winding said positive electrode and said negative electrode such that another one of the first set of gel-electrolyte layers and one of the second set of gel-electrolyte layers face each other;

inserting said wound electrodes into a film pack; and

after inserting said wound electrodes into the film pack, subjecting said wound electrodes to heat treatment so that each of the first set of gel-electrode layers and the one of the second set of gel-electrolyte layers facing each other are integrated with each other into one continuous seamless layer,

wherein,

said gel-electrolyte layers comprise an electrolyte salt, a nonaqueous solvent and a matrix polymer,

said gel-electrolyte layers comprises $LiC_4F_9SO_3$; ~~and~~

said matrix polymer <u>includes </u>~~is~~ ~~any one of polytetrafluoroethylene, polyhexafluoropropylene, polyethylene oxide, polypropylene oxide, polyphosphagen, , polyvinyl alcohol, styrene-butadiene rubber, nitrile-butadiene rubber, polystyrene or polycarbonate~~ poly<u>vinyldene flouride and polyhexafluoropropylene, and</u>

<u>the matrix polymer has an ion conductivity higher than 1 mS/cm at room temperatures</u>.

8-9. (Canceled).

10. (Original) The method of claim 7, wherein said wound electrodes are subjected to heat treatment for ten minutes.

11-12. (Canceled).

13. (Previously Presented) The method of claim 7, wherein said nonaqueous solvent is selected from the group consisting of ethylene carbonate, propylene carbonate, butylene carbonate, γ-butylolactone, γ-valerolactone, diethoxyethane, tetrahydrofuran, 2-methyltetrahydrofuran, 1, 3-dioxane, methyl acetate, methyl propionate, dimethylcarbonate, diethyl carbonate or ethylmethyl carbonate or their mixture.

14-16. (Canceled)

17. (Currently Amended) A method of manufacturing a solid-electrolyte battery comprising:

forming gel-electrolyte layers on both sides of a positive electrode and a negative electrode, wherein one of said solid-electrolyte layers formed on said positive electrode and one of said gel-electrolyte layers formed on said negative electrode face each other;

winding said positive electrode and said negative electrode after pressing;

inserting said wound electrodes into a film pack; and

after inserting said wound electrodes into the film pack, subjecting said wound electrodes to heat treatment so that said gel-electrolyte layers formed on said positive electrode and said gel-electrolyte layers formed on said negative electrode are integrated with each other into one continuous seamless layer,

wherein,

said gel-electrolyte layers comprise an electrolyte salt, a nonaqueous solvent and a matrix polymer,

said gel-electrolyte layers comprises $LiC_4F_9SO_3$; and

said matrix polymer includes ~~is any one of polytetrafluoroethylene, polyhexafluoropropylene, polyethylene oxide, polypropylene oxide, polyphosphagen, , polyvinyl alcohol, styrene-butadiene rubber, nitrile-butadiene rubber, polystyrene or polycarbonate~~ polyvinyldene flouride and polyhexafluoropropylene, and

the matrix polymer has an ion conductivity higher than 1 mS/cm at room temperatures.